M-d

ARKLA EXPLORATION NMA CORE TEST No. 38
SW/SW Sec 8-T17N-R23E,Navajo Co. 9-25

32 x

County NAVAJO

Area

Lease No.

Well Name ARKLA EXPLORATION CO. NMA CORE TEST #38

Location SW SW Sec 8 Twp 17N Range 23E Footage 666 FSL - 718 FWL

Elev 5552 Gr 5559 KB Spud Date 2-25-65 Completed Abandon Total Depth 1600

Contractor Sojourner

Drilled by Rotary
Cable Tool

Casing Size	Depth	Cement

Production Horizon

Initial Production

REMARKS

Elec Logs Neutron Log

Applic. to Plug Plugging Record Completion Report

Sample Log
Sample Descript.
Sample Set
Core Analysis
DSTs

Water well accepted by

Bond Co. & No.

Bond Am't $ Cancelled Date Organization Report

Filing Receipt Dated Well Book Plat Book

API No. 02-017-00268 Loc. Plat Dedication

Permit Number None Date Issued

#9-25

32 ×

LITHOLOGIC DESCRIPTION

WELL NAME: ARKLA EXPLORATION COMPANY #38 NYA

LOCATION: Sec.8-17N-23E

ELEVATION:

0-10'	RED, PURP & BUFF SH CGL W/SD MICA (SIG).
10-20'	AA, AA, AA, AA, AA,AA.
20-30'	AA, AA, AA, AA, AA,AA.
30-40'	AA, AA, AA, AA, AA, AA,M AA, TR LS & DOLO.
40-50'	AA, AA, AA, AA, AA, AA, AA.
50-60'	AA, AA, SH & SD CGL TO CGL M-MCSE.
60-70'	80% PURP & BR SH 20% MCGL.
70-80'	80% AA, AA, 20% AA.
80-90'	100% BR SH.
90-00'	100% AA, AA.
100-10'	100% BR GRN GRA SH.
10-20'	100% AA, AA.
20-30'	80% AA, AA, 20% F SLTY.
30-40'	100% GRA GRN & GR SH.
40-50'	100% GRA GRN AA.
50-60'	100% AA, PRUP AA.
60-70'	100% AA.
70-80'	100% VLT GRA AA, SH TR F SD.
80-90'	100% AA, AA.
90-00'	100% BLU GRA, BR SH.
200-10'	100% AA, AA, AA.
10-20'	100% AA, AA, AA.
20-30'	100% GRN GRA AA, AA.
30-40'	70% AA, SH 30% GRA F V BENTON SD.
40-50'	100% CGL MF GRN GRA LT GRA AA.
50-60'	100% AA, AA, AA, AA, AA, WHT AA.

DO NOT REMOVE FROM FILE

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60-70'	100% AA, AA, M AA, AA, AA.
70-80'	10% AA, AA, 90% D K RED PURP SH.
80-90'	100% DRK RED PURP SH, TR BUFF.
90-00'	80% SD DIRTY DK GRA F-M GRA, WF SLEGL.
300-10'	100% DK RED SH TR BUFF MOTTLED.
10-20'	BUFF & BUFF MOTTLED TR CGL SH.
20-30'	AA, GRA PURP YELLO SH LS MOTTLED.
30-40'	RED, PURP SH TR CGL.
40-50'	AA, AA, RED SH.
50-60'	70% RED SH 30% RED SLT.
60-70'	70% RED & PURP SH 30% RED SLT.
70-80'	100% RED SLT.
80-90'	100% RED SLT STN.
90-00'	100% AA, AA.
400-05'	100% LT GRN BR BRN F MICAC.
05-10'	80% LT GRN SD 20% RED SH.
10-15'	100% RED SLT ST.
15-20'	100% AA, AA.
20-30'	70% AA, AA, & SH 30% VF LT GRN SD.
30-40'	70% AA, AA, AA, 30% AA.
40-50'	70% AA, AA, AA, 30% AA.
50-60'	20% AA, AA, 80% F AA.
60-70'	100% GRN F-M DIRTY BR M MICAC.
70-80'	100% GRN VF.
80-90'	50% AA, AA, 50% RED SH.
90-00'	20% AA, AA, 80% AA. AA.
500-10'	80% BR M DIRTY MICAC SL CGL.
10-20'	80% RED SLT STN & SH 20% BR DIRTY M.
20-30'	90% AA, AA, AA, AA, 10% GRN VF.
30-40'	100% AA, AA.

32×

File # 5-25

LITHOLOGIC DESCRIPTION

WELL NAME: ARKLA EXPLORATION COMPANY #38 NMA

LOCATION: SEC.8-17N-23E

ELEVATION:

DO NOT REMOVE FROM FILE

0-10'	RED, PURP & BUFF SH CGL W/SD MICA (BIO).
10-20'	AA, AA, AA, AA, AA,AA.
20-30'	AA, AA, AA, AA, AA,AA.
30-40'	AA, AA, AA, AA, AA, AA,M AA, TR LS & DOLO.
40-50'	AA, AA, AA, AA, AA, AA, AA.
50-60'	AA, AA, SH & SD CGL TO CGL M-MCSE.
60-70'	80% PURP & BR SH 20% MCGL.
70-80'	80% AA, AA, 20% AA.
80-90'	100% BR SH.
90-00'	100% AA, AA.
100-10'	100% BR GRN GRA SH.
10-20'	100% AA, AA.
20-30'	80% AA, AA, 20% F SLTY.
30-40'	100% GRA GRN & GR SH.
40-50'	100% GRA GRN AA.
50-60'	100% AA, PRUP AA.
60-70'	100% AA.
70-80'	100% VLT GRA AA, SH TR F SD.
80-90'	100% AA, AA.
90-00'	100% BLU GRA, BR SH.
200-10'	100% AA, AA, AA.
10-20'	100% AA, AA, AA.
20-30'	100% GRN GRA AA, AA.
30-40'	70% AA, SH 30% GRA F V BENTON SD.
40-50'	100% CGL MF GRN GRA LT GRA AA.
50-60'	100% AA, AA, AA, AA, AA, WHT AA.

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60-70'	100% AA, AA, M AA, AA, AA.
70-80'	10% AA, AA, 90% D K RED PURP SH.
80-90'	100% DRK RED PURP SH, TR BUFF.
90-00'	80% SD DIRTY DK GRA F-M GRA, WH SLEGL.
300-10'	100% DK RED SH TR BUFF MOTTLED.
10-20'	BUFF & BURP MOTTLED TR CGL SH.
20-30'	AA, GRA PURP YELLO SH LS MOTTLED.
30-40'	RED, PURP SH TR CGL.
40-50'	AA, AA, RED SH.
50-60'	70% RED SH 30% RED SLT.
60-70'	70% RED & PURP SH 30% RED SLT.
70-80'	100% RED SLT.
80-90'	100% RED SLT STN.
90-00'	100% AA, AA.
400-05'	100% LT GRN BR BRN F MICAC.
05-10'	80% LT GRN SD 20% RED SH.
10-15'	100% RED SLT ST.
15-20'	100% AA, AA.
20-30'	70% AA, AA, & SH 30% VF LT GRN SD.
30-40'	70% AA, AA, AA, 30% AA.
40-50'	70% AA, AA, AA, 30% AA.
50-60'	20% AA, AA, 80% F AA.
60-70'	100% GRN F-M DIRTY BR M MICAC.
70-80'	100% GRN VF.
80-90'	50% AA, AA, 50% RED SH.
90-00'	20% AA, AA, 80% AA. AA.
500-10'	80% BR M DIRTY MICAC SL CGL.
10-20'	80% RED SLT STN & SH 20% BR DIRTY M.
20-30'	90% AA, AA, AA, AA, 10% GRN VF.
30-40'	100% AA, AA.

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40-50'	100% AA, AA.
50-60'	100% AA, AA.
60-70'	90% AA, AA, 10% AA.
70-80'	90% AA, AA, 10% AA.
80-90'	100% AA, AA.
90-00'	80% AA, AA, 20% 1ST DOLO.
600-10'	100% AA, AA.
10-20'	100% RED BR F-LT RED BR F-MF.
20-30'	50% M BR, VLT BR LO O SL CGL 50% RED SLT.
30-40'	40% AA, AA, AA, LO AA, 60% AA, AA.
40-50'	50% WHT MCSE CGL.
50-60'	100% WHT BR WHT M LO SL CGL CLEAR TCSL FRG.
60-70'	AA.
70-80'	AA.
80-90'	AA.
90-00'	WHT, LT BR M-F SD.
900-10'	BR WHT LT BR.
10-20'	AA, AA, DK RED BR F.
20-30'	AA, RED BR.
30-40'	AA, LT RED BR DK RED BR SLTY.
40-50'	AA.
50-60'	AA, MF.
60-70'	V FOUGH DRLG, LOST CIRCULATION REC CIRC @ 1180'.
70-80'	AA.
80-85'	VHD F LT BR DK BR RED SD & RED SILT.
85-90'	WHT XLN SOFT ANHY.
90-95'	AA, AA, AA, AA, W/TRS DNS GRA ANHY, 7" @ 1193' W/30 SKS.

COFE #1 1025-1036 REC 2½ BARREL JAMMED 2½' RED BR M SLTY SD. FRACTURED.

DRILLED 1036'-1050" NO RETURNS

DETAILED CORE DESCRIPTION

WELL NAME: NMA #38

LOCATION:

ELEVATION:

1050'-56'-6'	72" F LT RED BR SAND V WET.
56'-61'10"-5'10"	70" AA, AA, AA, AA.
61'10"-67'9"-5'11"	F AA, & RED BR.
67'9"-73'5"-5'10"	AA.
73'5"-79'-5'7"	AA.
79'-84'8"-5'8"	AA.
84'8"-90'5"-5'9"	F LT RED BR TO DK RED BR SLT MICAC.
90'5"-96'4"-5'11"	71" DK RED BR SLT TO F-VF RED BR SLTY, SH PTNG 1094.2.
96'4"-02'-5'8"	BKN RED SLT & WHT F SD W/SH PTNGS TO RED BRF.
02'-08'-6'	F LT & DK RED BR-SLT & SH PTNGS.
09'-14'6"-5'6"	AA, TO VF LT & DK RED BR.
14'6"-20'3"-5'9"	VF RED W/WHT SD INCLS RED SLT & SH PTNGS.
20'3"-26'-5'9"	VF-F RED SD W/RED SLT & SH PTNGS.
26'-31'9"-5'9"	F-VF RED BR W/PTNGS & INCLS RED & GRN SH & SLT.
31'9"-37'9"-6'	F-V RED BR W/PTNGS & INCLS RED & GRN SH & SLT.
37'9"-SKIP	
38'5"-39'6"-1'1"	RED & BR SLT & VF SD TO VLT BR F SD.
DRILLED	
78'6"-80'-1'6"	RED SH.
DRILLED	
1201'-06'9"-5'9"	ANHY GRA DNS.
06'9"-12'5"-5'8"	2" ANHY, 16" RED SH, 4" ANHY FRACT FG W/SH IMP, TR GRN SH, 46" RED SH.
12'5"-17'10"-5'8"	17" RED SH W/FEW SALT XLS IN SH, 51" SALT 10% SH & ANHY IMP, TOP SALT 1213'8".
17'10"-23'6"-5'8"	17" SALT 20% SH, 33" SALT CLEAR-VLT AMBER TRS SH & ANHY, 18" SALT 10% SH & ANHY.
23'6"-29'3"-5'9"	23" SALT 10% SH, 19" SALT TRS SH & ANHY, 27" SALT 10% RED SH.

DO NOT REMOVE FROM FILE

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29'3"-34'5"-5'5"	5" SALT 10% SH, 10" SALT CLEAR TR SH, 31" SALT 20% SH, 19" SALT 30% SH INCLS & PTNGS.
34'5"-40'3"-5'10"	59" SALT 30% SH, 11" SH 40% SALT.
40'3"-46'-6'	4" SALT 30% SH, 6" SH 40% SALT, 49" SALT 30% SH INCLS & PTNGS, 13" SH W/SALT INCL.
46'-54'7"-5'7"	18" SALT 30% SH, 51" SALT 10% SH & ANHY IN LAST 6".
54'7"-60'3"-5'10"	5" ANHY DNS, 31" SALT 10% ANHY PTNGS, 17" ANHY, 17" SALT 10% SH & ANHY.
60'3"-66'-5'9"	53" ANHY W/SALT XLS & PTNGS - PUERCO -, 8" SALT 10% ANHY & SH, 7" SALT 30% SH PTNGS & INCLS.
66'-71'10"-5'10"	11" SH 20% SALT, 9" SALT 20% SH, 3" SH 20% SALT, 20" SALT 20% SH, 14" SALT 40% SH, 13" SALT 30% SH.
71'10"-77'5"-5'7"	67" SALT 20% SH.
77'5"-83'-5'7"	19" SALT 10% SH, 19" SALT 20% SH INCLS & PTNGS, 1" SH, 11" SALT 10% SH, 19" SALT VLT AMBER TRS ANHY ORNG.
83'-89'-6'	21" SALT CLEAR TRS ANHY ORNG, 8" SALT 10% ORNG ANHY, 39" SH FRACS 30% SALT, 4" SALT 20% SH.
89'-94'6"-5'8"	3" SALT 20% SH, 24" SALT 40% SH, 36" SALT 30% SH, 5" SALT 40% SH.
94'6"-01'2"-5'8"	10" SALT 20% SH, 13" SALT 40% SH, 21" SALT TRS SH & ANHY, 24" SALT CLEAR TO VLT ORNG TRS ANHY & SH.
01'2"-05'8" 05'8"-10'6"	9'4" SALT
10'6"-16'3"-5'10"	9" SALT 20% SH, 46" SALT 40% SH INCLS & PTNGS, VF, 8" SALT 20% SH, 7" RED & PINK SH W/SALT INCLS.
16'3"-21'9"-5'7"	1" ANHY & PINK SH, 20" SALT, 20% SH, 33" SALT 20% RED & GRN SH & ANHY, 13" SALT 10% SH & ANHY.
21'9"-27'3"-5'6"	44" SALT 10% SH PINK & ANHY ORNG, 22" SALT VLT ORNG, TRS ANHY ORNG.
27'3"-32'10"-5'10"	10" SALT VLT ORNG, 31" SALT 40% SH, 23" SH TRS SALT.
32'10"-38'8"-5'10"	8" SALT 40% SH, 26" SALT 10% SH IMP, 12" SALT 20% SH, 24" SALT 10% SH.
38'8"-44'4"-5'8"	40" SALT TRS SH IMP, 28" SALT VLT ORNG.
44'4"-48'9"-5'9"	28" SALT CLEAR TRS ANHY, 19" SH W/SALT INCLS & PTNGS, 22" SALT 10% SH.
48'9"-55'6"-5'9"	31" SALT TRS SH, 2" SALT 20% SH, 34" SALT TRS ANHY & SH, 4" SH 30% SALT.
55'6"-58'4"-2'10"	4" SALT 30% SH, 6" SALT 20% ANHY & SH, 3" SALT VLT ORNG, 9" ANHY W/SALT XLS (LP), 11" SALT CLEAR W/CLEAR W/PTNGS ANHY.

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CORE #2 1050-1069

1050-62½ BR LT RED BR F-M; 62½-66 BR PINK F W/IT COLORED F SD INCLS; 66-69 LT BR PINK F.

CORE #3 1069-1083

1069-76 RED SLT STN W/LAM OF LT COL SLT STN; 76-82 VF BR SLTY SD SLT STN; 82-83 BR SLTY F SD.

CORE #4 1083-1109½-26½-REC 25'-SHORT 1½'

1084-89½ RED BR TO GRA F SLTY SD BLEEDING; 89½-1108 RED SDY SH TO V SLTY SD W/WATER INCLS OF LT GRA SD F.

CORE #5 1109-1139½

1109-18½ RED SLTY SD TO SDY SLT W/INCLS LIGHT F SD; 18½-28 RED SDY SLT & SLTY SD W/THIN DK RED SLT BREAKS; 28-39½ RED SLT STN W/THIB SDY BREAKS.

CORE #6 1140-1164-REC. 3'

WHT SL DOLO F SD & RED SLT.

CORE #7 1164-1175-NO REC.

CORE #8 1175-1180-REC. 1½'.

VERY FRACTURED RED SH & SLT W/SL DOLO. IT GRN F SD INCLS.

RAN LOG AT 1180'

DRILLED
1180-95' ANHY.

CORRECTION 1195=1201

CORE #9 1201-1253 REC 49'

1201-1207 ANHY GRA DNS; 1207-13½ RED SH W/GYP INCLS; 13½-22 SALT W/FEW ANHY INCLS, 5% IMP; 22-23 SALT W/30% SH; 23-31 SALT; 31-45 50% SALT 50% RED SH IMP; 45-46 RED SH; 46-47½ 50% SALT 50% RED SH IMP; 47½-50 SALT WH 90%, SH RED IMP 10%.

CORE #10 1253-1305

1253-56 SALT 90%, SH IMP 10%; 56-65½ ANHY W/SALT INCLS; 65½-67 RED SH; 67-72 50%-50% SALT & SH; 72-81 90% SALT 10% SHALE; 81-85 WHT & PINK SALT W/SCATTERED ORANGE BLEBS; 85-90 90% SH 10% SALT; 90-95 70% SALT 30% SH; 95-96 RED SH; 96-1305 WHT & PNK SALT W/SCATTERED BLUISH GRY ANHY BANDS 02-05 & ORANGE SALT BLEBS.

CORE #11 1305-1358

1305-10 SALT W/ORANGE BLEBS; 10-14 60% AA, 40% SH; 14-21 70% AA, 30%AA; 21-25 95% AA, 5% AA SCATERED ORANGE BLEBS; 25-28 PINK SALT; 28-31 30% SALT, 70% SH; 31-32½ SH W/HAIRLINE SALT FILLED FRACTS; 32-47 95% SALT 5% SH IMP; 47-48 SH W/PINK SALT FILLED FRACT; 48-56 95% PINK & WHT SALT 5% SH IMP SCATTERED ANHYINCLS, (56-58 SALT W/ANHY INCLS).

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ARKLA EXPLORATION COMPANY

DRILLING RECORD

WELL NAME: IMA Core Test #22

WELL LOCATION: 660' FSL, 810' FWL, Sec. 12-1 N-23E.

WELL ELEVATION: 5559 ' K.B.

CONTRACTOR: SOJOURNER DRILLING COMPANY

SPUD DATE: 2-25-65 6:00 a.m.

SIZE HOLE DRILLED: 17½ " TO 75 '

TYPE DRILLING FLUID: GEL.

SURFACE CASING:
SIZE 10¾ " WT. 32.75 #, No. SACKS CEMENT
CEMENTING DEPTH: 75 '

SIZE HOLE DRILLED: 8¾ '

TYPE DRILLING FLUID: GEL.

INTERMEDIATE CASING:
SIZE 7 ", WT. 20 #, No. SACKS CEMENT 30

CEMENTING DEPTH 921

SIZE HOLE DRILLED OR CORED:
6¾ " FROM 1193.5 ' TO 1600 ' SEE BELOW
" FROM ' TO '
" FROM ' TO '
" FROM ' TO '

DRILL STEM TESTS:
NONE

NO. BITS USED: 1

ELECTRIC LOGS RAN:
TYPE McCULLOUGH GRN FROM 1600 ' TO 0
FROM ' TO

ABANDONMENT PLUGS:
No. SACKS CEMENT 40 FROM 1300 ' TO 1100 '
FROM ' TO '

WAS CASING RECOVERED?
DEPTH SHOT LEFT IN WELL TO BE RECOVERED LATER.
No. FEET RECOVERED '
No. FEET NOT RECOVERED '

DATE DRILLING RIG RELEASED: 3-7-65 8:00 a.m.

COMPANY REPRESENTATIVE: JAMES C. BALDRY

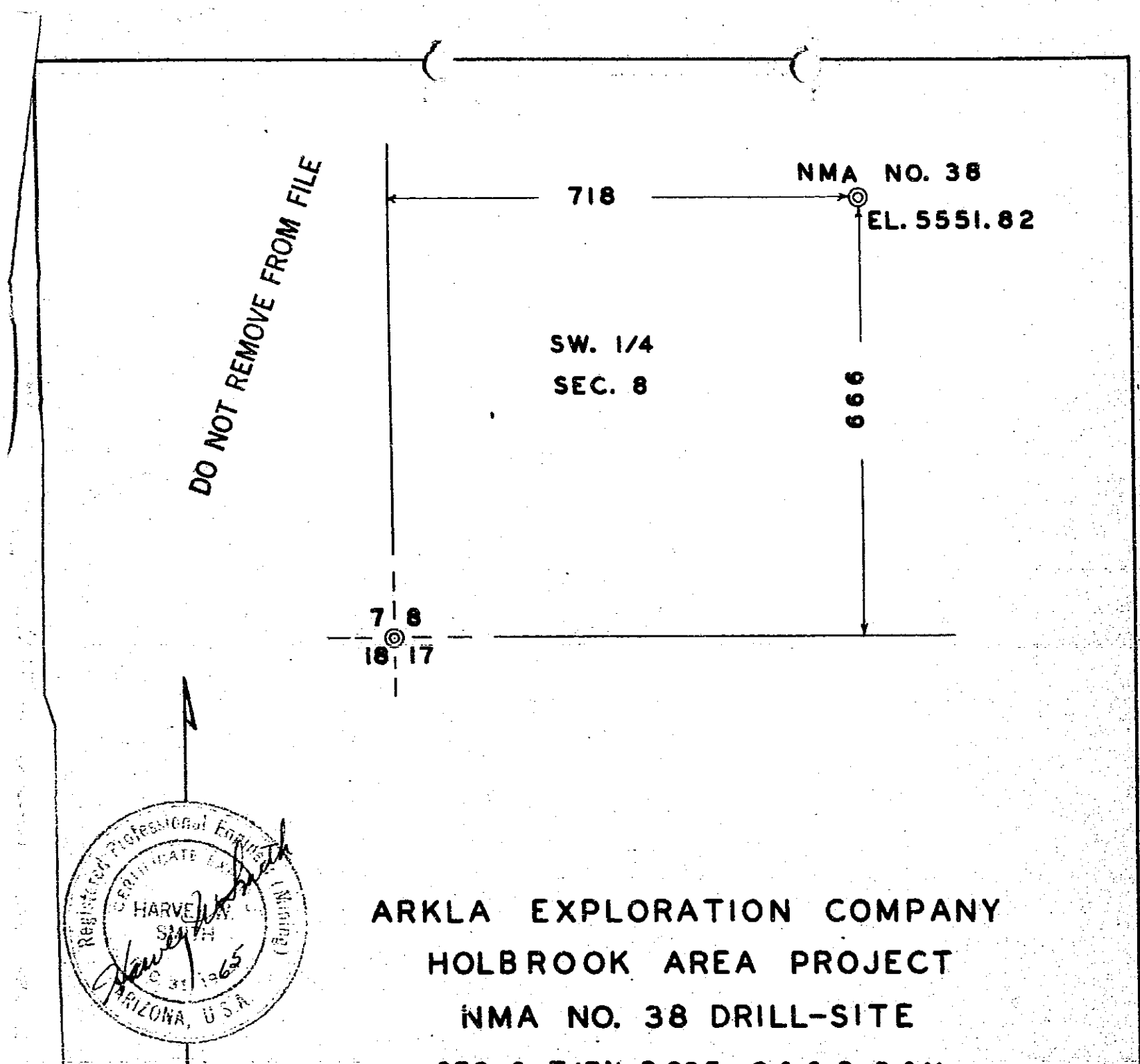
SPECIAL [illegible]: UNUSUAL DRILLING PROBLEMS ENCOUNTERED, ETC.
START[illegible]ING MUD [illegible] 905'-LOST COMPLETE CIRCULATION @ 973'. MIXED 4 P[illegible] OF MUD
[illegible] DRILLED TO 1025'-CORED [illegible] DRILLED TO 1030'-NO RETURNS. [illegible] 1030
1180 [illegible] RETURNS OF DRILLING FLUID. MIXED MORE MUD AT 1180' (MIXED 2 P[illegible]) A[illegible]
SET P[illegible] DRILLED 1180-1195 FULL RETURNS. SET 7" CASING. 1193.5-1201 DRILLED;
1201-1254 CORED; 1[illegible]-1600 DRILLED.

DO NO[illegible] [illegible]OM FILE
DO NOT REMOVE FROM FILE

ARKANSAS LOUISIANA GAS CO.
HOLBROOK, ARIZONA
RECEIVED
MAR 8 1965
GEOLOGICAL
DEPT.

#9-25

32 × [illegible]



ARKLA EXPLORATION COMPANY

HOLBROOK AREA PROJECT

NMA NO. 38 DRILL-SITE

SEC. 8, T.17N., R.23E., G.& S.R. B.&M.

~~APACHE~~ NAVAJO COUNTY ARIZONA

SCALE 1" = 200' MAR. 15, 1965

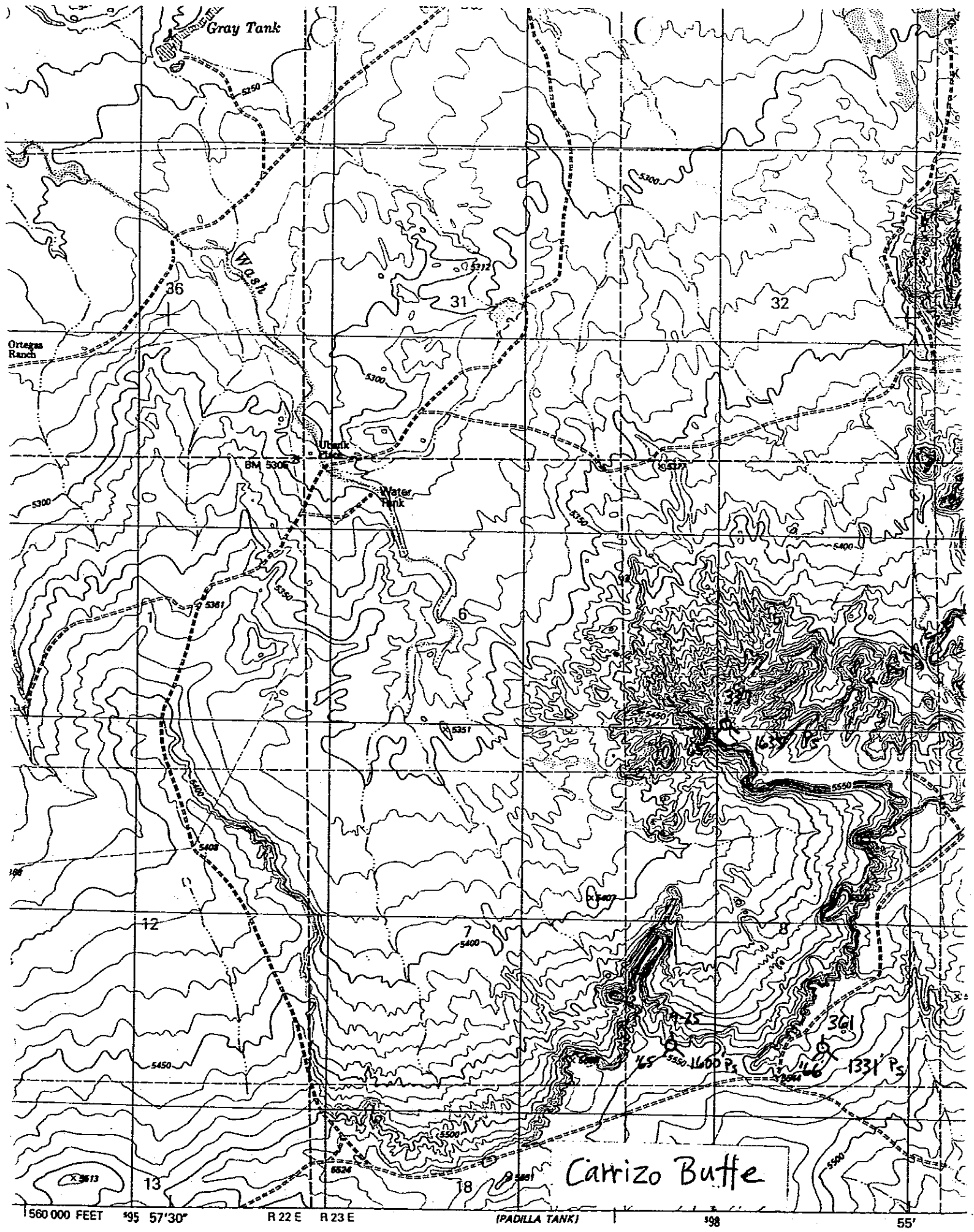
SURVEYED BY: HARVEY W. SMITH, E.M.

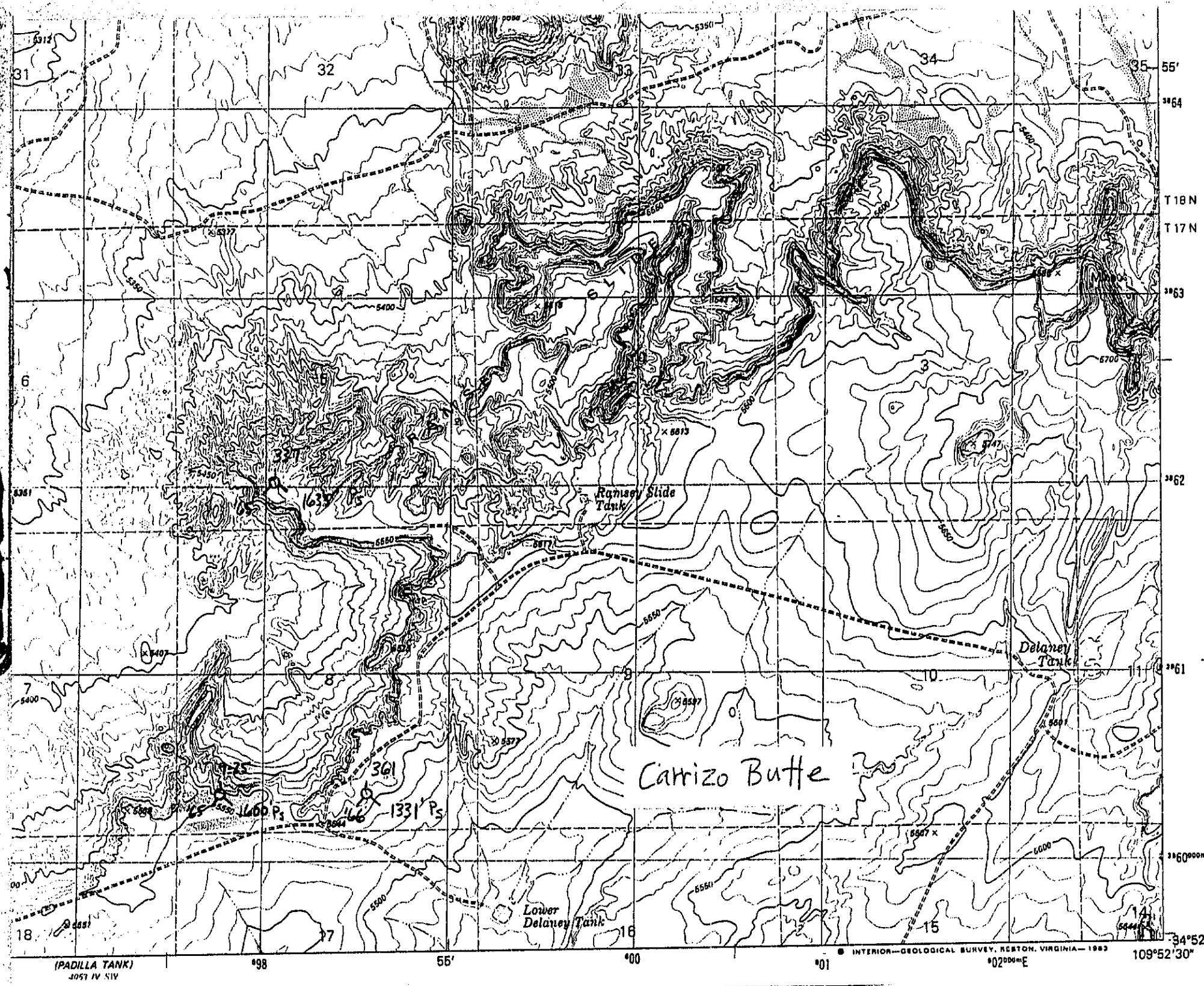
REGISTERED MINING ENGINEER

U.S. MINERAL SURVEYOR

#9-25

32 × 1


Gray Tank
Wash
36
31
32
Ortega Ranch
Utank Place
BM 5305
Water Tank
6
1
12
7
8
13
18
Carrizo Butte
560 000 FEET
R 22 E
R 23 E
(PADILLA TANK)
55'


Ramsey Slide Tank
Delaney Tank
Cattrizo Butte
Lower Delaney Tank
(PADILLA TANK)
T 18 N
T 17 N
55'
56'
34°52'30"
109°52'30"
INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1983